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(54) **Engine driven generator.**

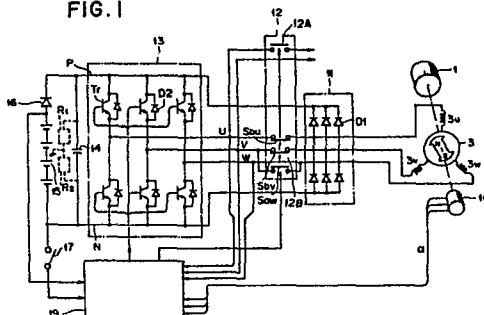
(57) An engine driven generator having an engine (1), a three-phase synchronous generator (3) to be driven by the engine (1), a direct current power supply (15) for actuating the engine (1), a direct current/alternating current power supply converter (13) for converting a direct current power of the direct current power supply (15) to an alternating current power and supplying the alternating current power to the three-phase synchronous generator (3);

(1) characterized in further comprising a full-wave rectifier (11) for rectifying an output of the three-phase generator (3) and supplying the thus rectified output to the direct current/alternating current power converter (13); a switching unit (12) for switching output terminals of the direct current/alternating current power converter (13) to

terminals of an outer device or output terminals of the synchronous generator (3); a rotor position detector (10) for detecting a position of rotor of the synchronous generator (3); and

(2) characterized in that during the period when the three-phase synchronous generator (3) performs the power generating operation after completing the actuation of the engine (1), a pair of positive and negative first single-phase switching elements are subjected to successive ON/OFF control operation while one pair of two-phase switching elements and the other pair of two-phase switching elements are alternated for each half of the time and subjected to PWM control operation so that output terminals corresponding to the two-phase switching elements are short-circuited with each other.

FIG. 1





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
A	EP-A-0 260 176 (VALEO) * page 1, lines 24-32,46,47; figure 12 *	1,4,7,8	H 02 J 7/14 H 02 P 9/08 H 02 K 7/18 F 02 N 11/04
A	----- PATENT ABSTRACTS OF JAPAN vol. 10, no. 179 (E-414)(2235), 24th June 1986; & JP - A - 61 026 500 (HITACHI) 05.02.1986 -----	1,4	
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			H 02 J 7/00 H 02 P 9/00 H 02 P 5/00 H 02 J 9/00 F 02 N 11/00
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 04-04-1990	Examiner LEOUFFRE M.
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	